

REMARKS

In view of the above amendments and following remarks, reconsideration and further examination are requested.

Proposed drawing amendments for Figures 1, 5, 6 and 7 have been provided to designate Figs. 5-7 as --Prior Art--, and to use proper cross hatchings in Figs. 1 and 6.

The specification and abstract have been reviewed and revised to make editorial changes thereto and generally improve the form thereof, and a substitute specification and abstract are provided. No new matter has been added by the substitute specification and abstract.

The instant invention pertains to an enameled wire, a method of soldering the enameled wire, and an electro-acoustic transducer including the enameled wire. The enameled wire includes a copper or copper alloy core wire, an insulating coated layer covering the core wire, and a melting layer covering the insulating coated layer. Such an enameled wire is known in the art; however, suffers from a drawback. Specifically, because the insulating coated layer which covers the core wire is transparent to a laser beam, when the laser beam is used to solder the core wire to a soldering portion while simultaneously stripping the insulating coating layer, a soldering problem results in 1 out of 200 instances because of the insulating coated layer's inability to efficiently absorb the laser beam. While a soldering problem occurring only 1 out of every 200 instances may seem slight, such a rate is actually very troublesome during mass production of electronic components when these components are usually produced by the hundreds of millions.

Applicant has addressed and resolved this drawback by providing a unique enameled wire which is less prone to exhibit the soldering problem associated with the conventional enameled wire. Specifically, the enameled wire of Applicant's invention includes an insulating coated layer that is colored. Because the insulating coated layer is colored it more efficiently absorbs a laser beam than does the transparent insulating coated layer of the conventional wire, such that the insulating coated layer is sufficiently melted and stripped away such that the core wire exhibits a good soldered connection to the soldering portion. Each of the independent claims is believed to adequately bring out the inventive feature of Applicant's invention.

The Examiner rejected claims 1-11 under 35 U.S.C. § 102(b) as being anticipated by Applicant's admitted prior art. This rejection is respectfully traversed in part and Applicant's admitted prior art is not applicable with regard to the newly added claims for the following reasons.

Contrary to the position taken by the Examiner, the insulating coated layer of Applicant's admitted prior art is not colored. Because this insulating coated layer is not colored and is transparent, it does not efficiently absorb a laser beam, whereby the insulating coated layer is not sufficiently melted at all times when a laser beam is subjected thereto to simultaneously strip the insulating coated layer and solder the core wire to a soldering portion, which results in the aforementioned soldering problem occurring in about 1 in every 200 instances.

Thus, the insulating coated layer of the conventional enameled wire is not "for efficiently absorbing a laser beam" as now recited in each of independent claims 12, 21 and 30. Accordingly, claims 12, 21 and 30 are not anticipated by Applicant's admitted prior art. Additionally, Applicant's admitted prior art provides no motivation for substituting a colored insulating coated layer for the transparent insulating coated layer thereof. Thus, claims 12, 21 and 30 are also not obvious over Applicant's admitted prior art. Accordingly, claims 12-35 are allowable.

Additionally, dependent claims 13, 14, 18-20, 25-29 and 31-35 further define the insulating coated layer from the insulating coated layer of the enameled wire of Applicant's admitted prior art. The features of these dependent claims are not taught or suggested by Applicant's admitted prior art, and accordingly, these claims are each patentable in their own right.

In view of the above amendments and remarks, it is respectfully submitted that the present application is in condition for allowance and an early Notice of Allowance is earnestly solicited.

If after reviewing this Amendment, the Examiner believes that any issues remain which must be resolved before the application can be passed to issue, the Examiner is invited to contact the Applicant's undersigned representative by telephone to resolve such issues.

Respectfully submitted,

Kenichi AJIKI

By: 

Joseph M. Gorski
Registration No. 46,500
Attorney for Applicant

JMG/edg
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
July 3, 2003